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| Title | Notes on Hymenopterous parasites of Longicorn beetles, with descriptions of two new species of Braconidae |
| Author(s) | WATANABE, Chihisa |
| Citation | INSECTA MATSUMURANA, 18(1-2): 25-29 |
| Issue Date | 1952-12 |
| Doc URL | http://hdl.handle.net/2115/9530 |
| Right | |
| Type | bulletin |
| Additional Information | |



Instructions for use

NOTES ON HYMENOPTEROUS PARASITES OF
LONGICORN BEETLES, WITH DESCRIPTIONS
OF TWO NEW SPECIES OF BRACONIDAE

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The material on which the following notes and descriptions are based was reared from larvae of Cerambycidae by some entomologists and was sent to the writer for identification.

Here the writer wishes to express his sincere gratitude for their endeavor to the entomologists who collected the interesting material used in the present study. Thanks are also due to Dr. K. YASUMATSU, of the Kyushu University, for his kindness in offering some of the material.

Family **Braconidae**

Atanycolus initiator (FABRICIUS)

Ichneumon initiator FABRICIUS, Entom. System. 2: 161, 1793.

Bracon initiator NEES, Hymen, Ichneum. affn. Monogr. 1: 101, 1834.

Atanycolus initiator WATANABE, Jour. Facul. Agr. Hokkaido Imp. Univ. 42: 13, 1937.

This species is widely distributed in the Palaearctic region, recorded as a parasite of several species of Cerambycidae in Europe.

Host : *Semanotus rufipennis* MOTSCHULSKY.

The present specimens were reared by M. YOGO from larvae of *Semanotus rufipennis*, feeding on the Japanese cedar, *Cryptomeria japonica* D. DON.

Specimens examined : 1 ♀ & 1 ♂, Kamabuchi, Yamagata-ken, 9, IX, 1950, M. YOGO leg.

Distribution : Europe, Caucasus, Asia Minor, Siberia, Saghalien, and Japan.

Doryctes nixoni, sp. nov.

♀. Head pale-testaceous, with a dark patch at the temples, a dark long mark behind the ocelli, and two dark elongate streaks at the face. Antennae yellowish-testaceous, darkened towards the apex. Thorax and propodeum more or less blackish-brown; mesonotum pale-testaceous with the lobes suffused with brown. Abdomen dark-brown dorsally and pale-testaceous ventrally; 1st tergite at the extreme apex reddish-brown, 4th to 7th tergites with a testaceous basal band; 8th tergite pale-testaceous, narrowly dark at the apex. Legs whitish-testaceous; femora, tibiae and tarsi with fuscous

markings; in 2 ♀ ♀ taken at Gifu and 1 ♀ taken at Yokohama the fuscous parts of the legs more distinctly marked than others. Wings subhyaline; stigma dark-brown, with the extreme base more or less pale-testaceous; veins dark-brown; 2nd intercubitus decolored.

Head subcubital, not markedly narrower behind the eyes than across them; vertex

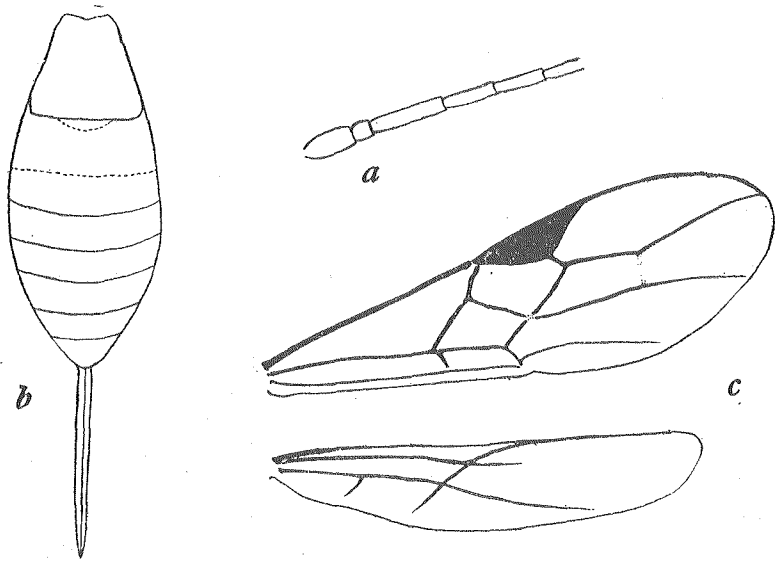


Fig. 1. *Doryctes nixonii*, sp. nov.

a. Basal joints of antennae. b. Abdomen (from above). c. Fore and hind wings.

more or less smooth and shining with pubescence; face and clypeus rugose, densely pubescent. Antennae 31-, 34- or 36-jointed; 1st joint of the flagellum distinctly longer than the 2nd, which is as long as the 3rd. Mesonotum smooth with pubescence, posteriorly with a triangular rugose area between the parapsidal furrows, which are distinctly marked and crenulate; mesopleurae smooth and shining; propodeum areolated, the dorsal areas large, almost smooth and shining, and the areola sparsely striate-rugose. Hind coxae with a small projection beneath at the base; hairs of the outer side of the hind tibiae hardly longer than those on the inner side. Nervulus slightly postfurcal; 2nd discoidal cell closed below at the apex; median cell of the hind wing widened to the apex; median cell of the hind wing gradually widened to the apex; First tergite as long as its apical width, which is 2 times as wide as the basal, distinctly longitudinally striate, with smooth area near the base; 2nd tergite (sculptured area of tergite (2+3)) as long as the 3rd tergite which is smooth and shining, the 2nd tergite longitudinally striate as in the 1st, with a smooth median area at the base; 4th and following tergites smooth and shining. Ovipositor about three-fourths the length of the abdomen.

Length, 4—5 mm. (without ovipositor).

♂. Unknown.

Holotype (♀), Gifu, 12. V, 1951, I. BITÔ leg. Paratypes: 1♀, Gifu, 12. V, 1951, I. BITÔ leg. 3♀♀, Ashimori, Okayama-ken, 5. IX, 1948, M. MANO leg. 1♀, Kashiwahara, Hyogo-ken, 12. X, 1950, Y. YAMAMOTO leg. 1♀, Yokohama, 3. V, 1950, M. KONISHI leg.

The holotype and four paratypes are deposited in the Entomological Institute, Hokkaido University, Sapporo, and two paratypes are in the Entomological Laboratory, Kyusyu University, Fukuoka.

Host: *Chlorophorus japonicus* CHEVROLAT, *Xylotrechus pyrrhoderus* BATES and *Niphona furcata* BATES.

Two females taken at Gifu were reared a larva of *Chlorophorus japonicus*, three females taken at Ashimori were reared from a larva of *Xylotrechus pyrrhoderus*, and one female taken at Yokohama was reared from a larva of *Niphona furcata*.

This species belongs to the species-group¹⁾ represented by *Doryctes cheops* NIXON, *D. palliatus* (CAMERON) and *D. calacte* NIXON, and it comes nearest to *Doryctes palliatus* (CAMERON)²⁾ (= *Doryctes picticeps* KIEFFER),³⁾ which occurs in Hawaii Islands, South China, India and Seychelles, and is known as a parasite of *Xylotrechus quadripes* CHEVROLAT and *Chlorophorus annularis* FABRICIUS in Tonkin, China. Were it not for that the 2nd tergite (sculptured area of tergite (2+3)) is nearly equal to the 3rd tergite in length, that the ovipositor is apparently shorter than the abdomen, and that the 1st joint of the flagellum is distinctly longer than the 2nd, the writer would have no hesitation to identify the present specimens with *D. palliatus*.

It is a great pleasure to name this species after Dr. G. E. J. NIXON, of the British Museum of Natural History, who has discovered the distinct species-group.

Helcon (Helconidea) planidorsum, sp. nov.

♀, Black; antennae dark-brown, with no white ring. Fore and middle legs reddish-yellow, the coxae black, and the tarsi pale-testaceous; hind legs black; trochanters and basal half of the femora yellowish-red; tibiae at the extreme base yellowish; tarsi pale-testaceous. Wings subhyaline; stigma and veins dark-brown.

Head transverse; vertex smooth and shining with scattered punctures; face and clypeus rugose, densely pubescent; frontal excavation deep, striate-rugose, with an erect tooth in the middle. Antennae a little shorter than the body, 30-jointed. Thorax more or less flat, the median lobe of the mesonotum not so strongly prominent; mesonotum punctate, strongly reticulate-rugose along the course of the parapsidal furrows which are broad and crenulate. Scutellum almost smooth, with scattered weak punctures. Mesopleurae reticulate-rugose, with a large smooth area at the middle. Propodeum strongly reticulate-rugose, the areolation not so distinctly marked. Nervulus slightly postfurcal; 2nd transverse nervure in the anal cell of the fore wing only faintly indicated. Basalis of the hind wing virtually antefurcal. Hind femora armed with a strong tooth. Abdomen comparatively slender; 1st tergite as long as the 2nd and 3rd tergites united, gradually widened towards the apex, a little longer than the apical width, and longitudinally striate, with two

1) See: NIXON, Ann. Mag. Nat. Hist. III (11): 486, 1939.

2) Trans. Ent. Soc. London 1881: 560, 1881.

3) Bull. Agr. Inst. Sci. Saigon 30: 135, 1921.

longitudinal carinae which are diverging towards the apex; 2nd and following tergites smooth and shining. Ovipositor 1.5 times as long as the abdomen.

Length, 9 mm. (without ovipositor).

♂. Agrees with the description of the female save as follows:—

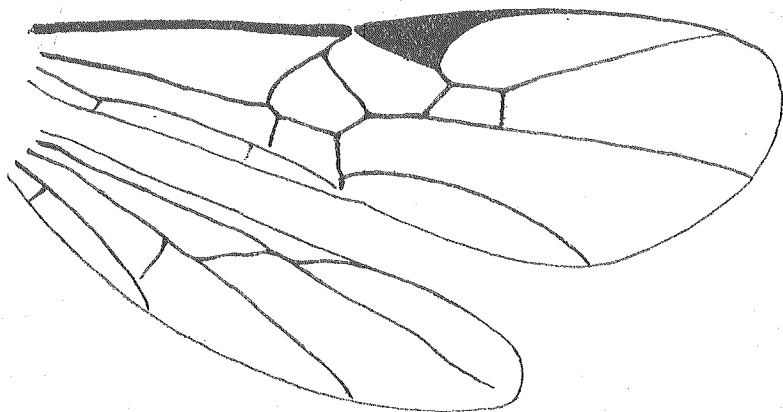


Fig. 2. Fore and hind wings of
Helcon (Helconidea) planidorsum, sp. nov.

Antennae more slender, reddish-brown, darkened towards the apex, 43-jointed; propodeum more remarkably areolated. First tergite more slender, nearly 2 times as long as its apical width, and two longitudinal carinae more distinctly marked.

Length, 8.5 mm.

Holotype (♀), Allotype (♂) and Paratypes (1♀ & 1♂), Honda-mura, Motosu-gun, Gifu-ken, 6. IV, 1950, K. OHBAYASHI leg.

The holotype and allotype are deposited in the Entomological Institute, Hokkaido University, Sapporo, and the paratypes are in the Entomological Laboratory, Kyusyu University, Fukuoka.

Host : *Dere thoracica* WHITE.

The present material was reared from larvae of *Dere thoracica* by K. OHBAYASHI.

This species is closely allied to *Helcon (Helconidea) spinator* (LEPELETIER), from which it is easily distinguishable by the following aspects : (1) Antennae with no white ring in the female. (2) Propodeum closely reticulate-rugose, and the areolation faintly indicated. (3) All coxae black. (4) Mesonotum flat, the middle lobe not so remarkably prominent. (5) Basalis of the hind wing antefurcal.

In the preceding paragraphs, "*Helconidea*" is accepted as the valid name of the subgenus, to which the present species belongs, for recognizing the following designation of the types of the genus *Helcon* and the subgenus *Helconidea*.

Genus **Helcon** NEES

Helcon NEES, 1812. Type—*Helcon tardator* NEES, 1812 (Desig. by WESTWOOD, 1839).

Subgenus **Helcon** NEES

Helcon NEES, 1812. Type—*Helcon tardator* NEES.

Gymnocelus FÖRSTER, 1862. Type—*Helcon tardator* NEES (Monob. and orig. desig.).

Subgenus **Helconidea** VIERECK

Helconidea VIERECK, 1914. Type—(*Helcon aequator* NEES, 1812)=*Helcon dentator* (FABRICIUS, 1804) (Monob. and orig. desig.).

Helcon auct. nec NEES, 1812.

Furthermore, *Aspidocolpus* WESMAEL (1838) which was given the rank of subgenus under the genus *Helcon* by the writer in 1931 and 1937 should be raised to a distinct genus. A detailed information on this subject will be offered in near future.

Family **Aulacidae****Pristaulacus intermedius** UCHIDA

Pristaulacus intermedius UCHIDA, Trans. Sapporo Nat. Hist. Soc. 12: 191, 1932.

Pristaulacus intermedius YASUMATSU, Mushi 10: 22–25, 1937.

This species was originally described by Dr. UCHIDA from four females and one male collected in Japan. Dr. YASUMATSU is the first specialist who has discovered the peculiar transverse furrow of the hind coxae, namely “Bohrerscheidestütze”, in the female. As he has stated, further examination is necessary in order to ascertain whether this peculiar structure may be accepted as a generic character of the genus *Pristaulacus* KIEFFER (Genotype—*Pristaulacus chlapowskii* KIEFFER, 1900) or not. The writer has, at least, to state here that it is also clearly visible in the type of *Pristaulacus rufipilosus* UCHIDA⁴) preserved in the Entomological Institute, Hokkaido University.

Host: *Chlorophorus japonicus* CHEVROLAT.

This species is an endoparasite of the larva of *C. japonicus*; one female was referred by I. Bitô for identification, with the note that the larva emerged from a host-larva and spun its cocoon in the pupal cell made by the host in a trunk of *Aphananthe aspera* PLANCH.

On the basis of the specimens examined new habitats of this species are given herewith.

Specimens examined—Hokkaido: 2 ♀♀, Iwamatsu, Tokachi, 27. VII, 1946, H. TAKAHASI, K. KOSUGI and S. SAKAGAMI leg. Honshu: 2 ♀♀, Bantai-san, Fukushima-ken, 4. VIII, 1927, S. MATSUMURA leg. 1 ♀, Gifu, 11. VI, 1951, I. BITÔ leg. (reared from *Chlorophorus japonicus*). 1 ♀, Umaji, Kôchi-ken, 3. IX, 1934, H. WADA leg. 1 ♀, Hongawa, Kôchi-ken, 21. VII, 1936, H. OKAMOTO leg. Manchuria: Daizô-san, 2. VII, 1938, I. OKADA leg.

Distribution: Japan and Manchuria.

4) Trans. Sapporo Nat. Hist. Soc. 12: 191, 1932.